

**In the Claims:**

4550. (Amended) The method of claim 4534, wherein a temperature of the one or more heat sources ~~wellbore~~ is maintained at a temperature of less than approximately 700 °C to produce a synthesis gas having a ratio of H<sub>2</sub> to carbon monoxide of greater than about 2.

4551. (Amended) The method of claim 4534, wherein a temperature of the one or more heat sources ~~wellbore~~ is maintained at a temperature of greater than approximately 700 °C to produce a synthesis gas having a ratio of H<sub>2</sub> to carbon monoxide of less than about 2.

4552. (Amended) The method of claim 4534, wherein a temperature of the one or more heat sources ~~wellbore~~ is maintained at a temperature of approximately 700 °C to produce a synthesis gas having a ratio of H<sub>2</sub> to carbon monoxide of approximately 2.

4554. (Amended) The method of claim 4534, wherein a heat source of the one or more heat sources comprises a natural ~~distributor~~ distributed heater.

4555. (Amended) The method of claim 4534, wherein a heat source of the one or more heat sources comprises a flameless ~~distributor~~ distributed combustor (FDC) heater, and wherein fluids are produced from ~~the~~ a wellbore of the FDC heater through a conduit positioned within the wellbore.